



National Aeronautics and Space Administration • Ames Research Center, Moffett Field, California

Bond Drive to Begin May 11

When it comes to building a nest egg, U. S. Savings Bonds are still about the best thing going. Ames employees will have an opportunity to start building when the annual Bond Drive gets underway on May 11.

Acting Director C. A. Syvertson has named Marcelline C. Smith (still known to many as Marcie Chartz), Staff Specialist in the Computation Division, as the Center's Savings Bond Campaign Manager and Coordinator.

At a campaign kick-off meeting held last week Mr. Syvertson outlined the advantages of buying savings bonds, stressing their stability as an investment and their best feature--automatic savings. He brought up the old cliché about the low interest rate, but he also pointed out, "there may be higher rates but 10 percent of nothing was still nothing" and the payroll savings method is a convenient, painless, and assured way to save. What better way to invest the Federal pay raise signed recently than in reliable U.S. Savings Bonds.

In announcing Mrs. Smith as the campaign manager Mr. Syvertson admitted that "women do better with money," emphasizing, at the same time, that one aim of the drive is to "raise the Center's participation rate to 70 percent." With the help of a competent staff Mrs. Smith hopes to accomplish that goal.

For the second year the campaign theme is "Take Stock in America".

DR. LUMB HONORED

Top Telemetry Award to Ames Scientist

Dr. Dale R. Lumb, a research scientist in the Spacecraft Data Systems Branch, Systems Engineering Division, has been named "man of the year" by the National Telemetry Conference.

He received the National Telemetry Man of the Year Award at the conference awards luncheon last Wednesday at the Los Angeles Hilton Hotel.

The award is for development by Dr. Lumb of an advanced coding system for spacecraft telemetry signals, which has enabled Pioneer 9, now in interplanetary space, to double the amount of data returned with no increase in power and very little added equipment.

Dr. Lumb's system, known as convolutional coding, can apply to most space communications and has promise for application to Earth communication systems. It employs an intricate mathematical coding technique and computer decoding.

Youth Science Congress Held

Eighteen high school students from the Northwestern states presented scientific papers at a regional Youth Science Congress held April 22-24 at Ames.

The program began at Stanford University with a presentation of papers followed by dinner, after which the students were invited to attend the Earth Day debate at the University.

Sponsored jointly by NASA and the National Science Teachers Association (NSTA), the Youth Science Congress aims to encourage promising students to enter science as a career, and to develop their abilities in science through scientific investigation.

Major emphasis is in developing the ability of these potential scientists to communicate their results to other scientists.

The influence of one teacher on his science students was especially notable, according to Educational Services Officer Garth A. Hull, co-

ordinator of the Youth Congress from the Ames Public Affairs Office. Of the 18 students participating, six were from Joel E. Ferris High School in Spokane where Al Finley is head of the science department, and two students (a brother and sister) were from Choteau, Montana, where he formerly taught science. Mr. Finley is known throughout the United States for his work with science students and more particularly for a Saturday Science Research Program which he conducts.

Ames research scientists individually discussed mutual research interests with students during one entire afternoon. These Drop-in Centers were established at the laboratories of the science advisors and proved a stimulating experience for students and scientists alike.

The most non-structured phase of the three-day program was the opportunity given to the students to individually select from 35 research areas which enabled them to explore new scientific fields of interest.

The student papers were evaluated by Ames research scientists Dr. Paul Callahan, Biochemical Endocrinology Branch, and Edwin D. Neville, Physiology Branch; and Dr. Seymour N. Stein, Chief of the Ames Medical Office. Other evaluators were science teachers Joe Davis, Campolindo High School, Moraga; Norman McRae, Pleasant Hill High School, Pleasant Hill; and Joe Olenchak, Antioch Senior High School, Antioch.

One of the highlights of the Youth Congress was the Awards Program at which Dr. Richard Merrill, President of the NSTA, presided. Guest speaker for the evening was Science-Astronaut Dr. William B. Lenoir, who also assisted in presenting award certificates and medals with Dr. Stein.

Other participants in the program from Ames were Robert Nuna-maker, Manager of Flight Operations, Project Pioneer, who discussed a "A Trip to Jupiter"; and Dr. William Quaide, who gave a talk entitled "A Geologist Looks at Moon Rocks."

Mr. Hull had great praise for the reactors, evaluators, and the many research scientists who gave so generously of their time and knowledge to make the program a success.

AIAA Conference

The Atmospheric Flight Mechanics Conference of the American Institute of Aeronautics and Astronautics (AIAA) will be held next week at the University of Tennessee Space Institute, Tullahoma, May 13-15.

The conference was planned to exchange information on entry vehicles, missiles, ordnance, aircraft, and V/STOL. Serving on the Conference Committee from Ames is Victor I. Stevens, Jr., Assistant Chief of the Thermo and Gas-Dynamics Division. He is also chairing a first-day session on "Entry Vehicles I", with Victor L. Peterson, Assistant Chief of the Hypersonic Aerodynamics Branch, as co-chairman.

Technical papers to be presented by Ames research scientists are: "Comparison of Free-Flight Experimental Results and Theory on the Nonlinear Aerodynamics Effects of Bluntness for Slender Cones", by Gerlad N. Malcolm, Hypersonic Free-Flight Branch and John V. Rakich, Hypersonic Aerodynamics Branch; "An Exploratory Study of the Roll Behavior of Ablating Cones", by John B. McDvett, Hypersonic

(Continued on Page 4)



SIGN OF THE TIMES . . . Marcie Smith, Chairman of the U.S. Savings Bond Drive at Ames, posts the first announcement of the campaign which gets underway May 11. It is then through May 22 that employees will have an opportunity to "Share in America '70" --a call to action to help our contry into the new decade, while helping ourselves at the same time by participating in the automatic Payroll Savings Plan.

Two From Ames SHARE Officers

Two computer specialists Ross C. Bainbridge, Chief of the Computer Systems Branch, and Captain Wayne Hathaway of the same branch, have been appointed to offices in the international computer organization SHARE.

The primary objective of SHARE is to advance the effectiveness of SHARE machine systems by promoting the free interchange of information concerning the use of such systems in the best scientific tradition. A further aim is to reduce redundant effort among system users in the preparation of computer programs for general use. SHARE machine systems are defined as including the IBM 7094 and those models of the IBM System 360 having a model number of 50 or higher.

Mr. Bainbridge was appointed assistant division manager to the Basic Computer System Division of SHARE, one of the four major divisions within the organization. In this appointive office Mr. Bainbridge will manage and coordinate the activities of the Control Program Systems Group which is composed of eight working projects.

Captain Hathaway's appointment is as chairman of the Computer Networking Project which is under the Control Program Systems Group. He is responsible for developing and guiding the Networking Project in activities related to the further development of the Computer Network which exists among various IBM systems and other computers and computer operating systems.

Credit Union's New EDP System

The Moffett Field Employees' Credit Union was host early last month to about forty credit union managers and board members who came to view a demonstration of the Electronic Data Processing (EDP) system. Representing some of the largest credit unions in Northern California, the group witnessed an actual credit union accounting system which utilizes on-line capability to provide information on members accounts.

James Cook, Director of Operations for League Data Processing Service, Inc., a subsidiary of the California Credit Union League, was present to explain the operation of the data center located in Pomona. Information for the computer is run on a Digitronics Data-Verter and then run on the Digitronics transmitter over telephone lines to Pomona.

The Moffett Field Employees' Credit Union is the first large credit union in Northern California to go on this particular data processing system.

Retirement Dinner

A retirement dinner in honor of Ted Plum, formerly of the Materials Processing Branch, will be held at the Sunnyview Family Club in Mountain View on Wednesday, May 20. Those interested in attending may call Les Buettner, ext. 3016, or Manuel Fontes, ext. 2234 for further detail. Deadline for making reservations is May 15.

Nakajima Named Auditor at Ames

The NASA Audit Division, Headquarters, has reactivated the NASA Audit Office at Ames to provide NASA management officials with continuing on-the-spot audit services. Michio Nakajima of the NASA Western Region Audit Office has been assigned as the Audit Manager.



MICHIO NAKAJIMA

The NASA Audit Office, Ames Research Center, formerly designated the San Francisco Area Audit Office, will operate as a suboffice of the Western Region Audit Office in Los Angeles.

Responsibilities of the Ames Audit Office will include both internal and contractor audits. It is anticipated that a major portion of the effort will be devoted to Ames in terms of internal audit, liaison activity on contract and contractor audit matters involving Ames contracts and advisory audit services to Ames officials. The ARC Audit Office as a Geographic Audit Office (Northern California, Northern Nevada, Utah, Colorado, Oregon, Washington, Idaho, Montana, Wyoming and Alaska) will be responsible for the audits by DOD or other Government audit agencies of all NASA contractors within the assigned geographical area.

AUDITOR'S ROLE

The traditional role of the auditor was to insure that the system produces reliable expense data and is adequate to prevent or detect defalcation, erroneous payments, and the like. However, in keeping with the current trend in audit practices, attention is focused on the adequacy of the system by use of appropriate audit techniques. The attempt to recheck each individual transaction or voucher has long since been given up.

Another job of the Audit organization, called the operational function, uncovers weak spots in the management process and suggests ways of overcoming them. This includes examining and appraising the adequacy and effectiveness of policies, systems, procedures records and reports relating to programming, budgeting, accounting,

College Students Need Housing

During the month of June a number of college students will report for work at Ames under the Federal Summer Employment Program. Many of the students will be out-of-the-area residents and will need temporary housing until they return to school in September.

Anyone interested in sharing a home or apartment with these students may call Mrs. Mercia Menges, Employment Branch, ext. 2021.

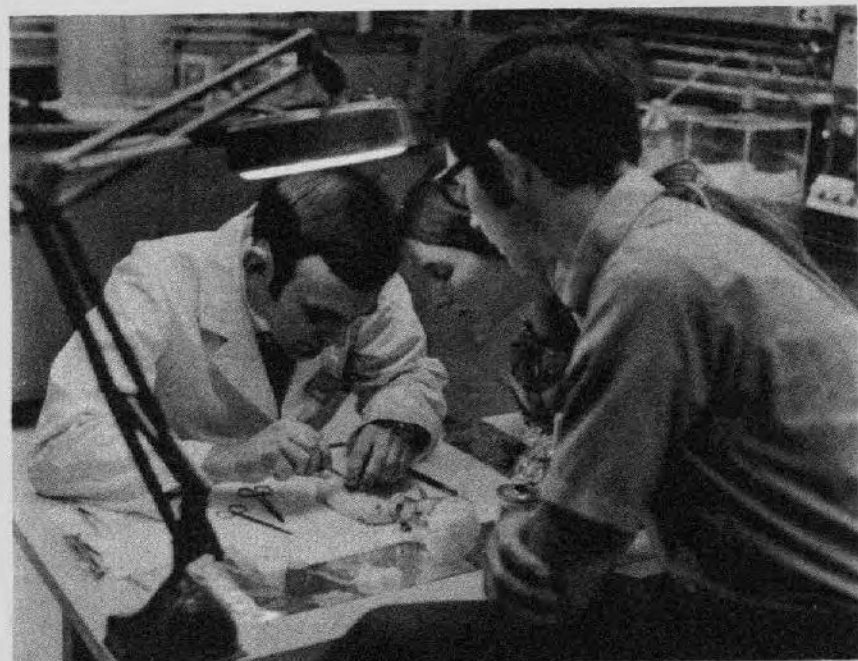
procurement, supply, financial or business transactions of all kinds; and other operations having an impact on the expenditure of funds, utilization of resources, or accomplishment of management objectives.

The Ames Audit Office, located in the Hypervelocity Free-Flight Facility, Building 237, has a planned staff of two auditors, in addition to the manager.

No stranger to members of the Ames staff, Mr. Nakajima has been making periodic visits to the Center for the past four years. He came to NASA in 1966 from Boston where he spent five years. His assignments there were with the Boston Region, Defense Contract Audit Agency, and the U.S. Army Audit Agency. Prior to transferring east he worked in San Jose as Resident Auditor for the U.S. Army Audit Agency at the FMC Corporation.

A native of San Francisco, Mr. Nakajima attended the local schools, studied at U.C. Berkeley, and was graduated with a B.S. degree in Business Administration from Washington University in St. Louis, Missouri, where he also attended graduate school. He began his career with the Federal Government in July 1958. For ten years prior to that he was a chief accountant, accounting manager, and was self-employed as a tax and business consultant.

Mr. Nakajima has many friends at Ames, and in the local area, some of whom he hasn't seen for many years. He plans to live in the West Valley Area of San Jose and will have an opportunity to renew old acquaintances.



YOUTH SCIENCE CONGRESS . . . Two students who participated in the NASA-NSTA Youth Science Congress held recently at Ames are pictured as they discussed mutual research interests with Karl S. Talarico (left) of the Physiology Branch. The students are (foreground) Richard F. Wright of Blackford High School, San Jose, and JoAnn E. Dalton, Joel E. Ferris High School, Spokane. Mr. Wright was also a participant in the Ames Student Space Biology Research Program for high school students in 1969.

Room 134
Admin. Mgt. Building
Phone 2385

The Astrogram

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Editor Dot Evans
Reporters NASA Employees

Deadline for contributions:
Thursday between publication dates

Personnel Corner

RETIREMENT ANNUITIES

The Personnel Office has received several inquiries concerning the Civil Service Commission's formula for making adjustments to retirement annuities to reflect increases in the cost of living.

The Federal Personnel Manual provides this information as follows: "Whenever the cost of living, nationwide, goes up by at least three percent over the Consumer Price Index for the month used as the base for the most recent cost of living annuity increase and stays up by at least 3 percent for three consecutive months, an increase approximately equal to the percentage rise in the Consumer Price Index will be granted automatically. This increase becomes effective on the first day of the third month after the price index has gone up by at least three percent and stayed up for three consecutive months. It applies to annuities (excluding that portion purchased by voluntary contributions) commencing on or before this effective date."

Applying this formula to data that the Bureau of Labor Statistics (BLS) has issued for the month of March it is possible that the next increase will be effective August 1, 1970. If this occurs the official announcement would be made by the Civil Service Commission about June 20. This announcement would also provide the percentage of increase.

To be eligible a Civil Service employee would have to be retired and off the rolls as of July 31, 1970.

SLOW-PITCH SOFTBALL

... by Grantland Wheat

The Ames slow-pitch softball league began play last week in the pre-season Banana League. And in the only two games played, the Fighting Pumas and the Instrumentals came out as "Top Bananas".

The Pumas peeled TGD by a score of 23 to 9 behind homeruns by Steve Kanally, Jim Gonsalves, and Marnell Smith, and five hits by Roger Hedlund. Pitts and Christianson homered for the losers.

The Instrumentals were ripe, but Space Science was still green as they got squished by the Big I's 23 to 3. Outstanding fielding by the Instrumentals limited Space Sciences to only seven hits. Spencer Shaw, Dean Jaynes, and Dave Mendenhall hit homeruns for the I's, while Bob King stretched a homerun into a triple.

Regular season play begins May 12.

CLERICAL POSITIONS

Merit Promotion Plan Procedure Outlined

Ames employees in clerical positions such as clerk-typist, stenographer, etc., grades GS-2 through GS-6 are reminded that the procedure used for being considered for promotion under the Merit Promotion Plan or reassignment to other Ames organizations is as follows: Employees should contact Jeanette Remington, ext. 2022, and indicate their interest in future vacancies. At that time Mrs. Remington will ask for an up-date of work experience, if necessary, and the completion of an availability and interest form.

As promotional opportunities occur, only those candidates who have registered for consideration will be rated and ranked under the provisions of the Merit Promotion Plan.

Only on rare occasions will a promotional opportunity for a clerical position be announced through the use of a vacancy announcement.

USCS Extends Apprentice Exam

The suspense date for filing for the Apprentice-First Year Examination for appointment at Hunters Point Naval Shipyard only, has been extended to May 25. For further information regarding this announcement call Mercy Menges, Employment Branch, ext. 2021.



ANTIQUE AIRCRAFT . . . This Interstate Cadet airplane was built originally in 1940 and rebuilt for flight in 1963 by Gil Robinson, Advanced Aircraft Program Office, who stands proudly by his handiwork. Eight Ames employees are presently flying the plane as members of the Moffett Aero Club, Inc. Gil has displayed the aircraft at several antique fly-ins and has received many awards for his workmanship.

Aero Club Flys Antique Plane

... by Dick Kurkowski

Eight Ames employees are having the time of their lives these days, flying their club airplane. The plane is an Interstate Cadet, originally built in 1940, which qualifies it as an antique aircraft.

Gil Robinson of the Advanced Aircraft Program Office at Ames, rebuilt the plane over a period of five years and had it flying again in 1963. He has displayed the aircraft at several antique and homebuilt fly-ins and received many awards for his fine workmanship.

The Moffett Aero Club, Inc.,

which was originated by another group of Ames people in 1956, was reactivated in 1968 and the Interstate Cadet became the club ship. Club members are Emmett Fry, and Leo Power, Flight and Systems Simulation Branch; Gil Robinson, Leo Hall and Joe Morelli, Large-Scale Aerodynamics Branch; Terry Gossett, Guidance and Control Systems Branch; Dick Kurkowski, Manned Systems Research Branch; and Bill Larsen, formerly with Man-machine Integration Branch.

The Interstate is a delight to fly because of the low control forces and excellent response to control inputs. It seats two persons in a tandem arrangement and has dual stick and rudder controls. Cruise speed is 90 mph with an 85 horsepower engine, and with a range of about 350 miles. Stall speed is a frightening 40 mph. The airplane is a bit noisy, but with a good set of earphones, helmet, goggles, scarf, and "Snoopy" for your copilot--who cares?

Curse you Red Baron!

ARA Operating Funds

Ames organized clubs, or those in the process of being organized, wishing to request operating money for May through November, 1970, are instructed to contact Dr. Seymour Stein, ext. 2693, or any other member of the Ames Recreation Association (ARA) Executive Board, by May 15.

Century 22 PATTON: A Salute to a Rebel

NEXT TO WINCHESTER MYSTERY HOUSE & CENTURY 21

NOW SHOWING

NASA - AMES RESEARCH CENTER

GROUP SALES MAIL ORDER

Make checks or money order payable to Century 23 Theatre and mail to Special Events, 3164 Olsen Drive, San Jose, Calif. 95117

Please send me _____ tickets At \$ 2.40

Date May 24 Time of performance 8 p.m.

My check for _____ is enclosed.

Name _____

Address _____

City _____ State _____ Zip _____

Please enclose remittance and a stamped self-addressed envelope.

All ticket requests must reach theatre by Monday, May 18

day and date

and tickets will be mailed by Monday, May 18

Note:

Do not use this form unless your chairman has notified you of a set date.

For Theatre Parties, Groups and Student Shows call:

Group Sales 296-1263 Weekdays 9 a.m. - 4 p.m.

Ames Airings

... by Jane Kohler

JOE NOVAKOVICH (Research Facilities Engineering) received his private pilot's license on April 18 flying a Cherokee 140. Joe had been working toward that goal for eleven months. At press time he hadn't taken any passengers flying with him but planned to take his wife, Barbara, soon. It seems that she was the one who initiated the flying lessons and gave Joe a Christmas gift certificate for flying. As far as cross-country trips are concerned, Joe was thinking of flying to Phoenix but "plans are still up in the air". Congratulations Joe. . . BRENDA BENADOM (formerly of Employment) is visiting in the States for five weeks between a second two-year tour with a Navy installation 35-miles from Rabat in French Morocco where she works as Chief of the Employment Division. Brenda, who was a Placement Specialist at Ames, may also be remembered as the "Ames Airings" correspondent. While in the area she has been staying with JEANETTE REMINGTON (Employment), visiting old friends on the Peninsula and at the Center. Following her home-leave she will return to work in Morocco. . . . RHONDA HEINZE, LINDA VOLLENWEIDER (both of Security) and KATHI VITIELLO (Training) made up half of an all-girl crew who decided to try their hand at houseboating on the Sacramento Delta. Although it rained and hailed at the dock, the crew must have written nice letters to the weatherman because they didn't even get wet, except for Rhonda, who decided since she couldn't catch any fish, she would join them. She didn't stay in the water long because, as she said, "it was colder than ice!" The crew, all of whom took a hand at steering, found a nice spot on Snodgrass Slough where they planned to tie up. As they started to drop anchor the river's "law and order" hailed them. The girls tried to think of what they could be doing wrong but found their guilt feeling was in vain. All the sheriff was trying to warn was not to tie up on the bank while the tide was high or they would be stuck high and dry when it went out. There was much fun, food, and laughter during the whole trip.

SPECIAL NOTICE

MARINE WORLD certificates for discounts at the park are no longer valid. A new discount program is being planned and will be offered in the fall.

BOWLING

... by Clark White

The All-Ames Bowling League completed the current season April 29 with playoffs and sweepstakes. The Keggers won first place in Division I while the Road Runners were second. Members of the winning team are: Dean Jaynes, Capt.; George Rathert, Ina Rathert, Norm McFadden, and Bill Ross.

In Division II the Woodchoppers won first place and the Timber Topplers were second. Team members of the winning team are: Larry Powell, Capt.; Barbara Perryman, Winnie Malloy, Jeanne Clemson, and Ray Sutton.

Individual trophy winners for the season are as follows:

Division A: High series, Hank Cole, 701; high game, Al Silva, 270.

Division B: High series, Jeanne Clemson, 711; high game, Dale Frankel, 269.

Division C: High series, Jan Konrath, 684; high game, Bob DeRenzy, 266.

Division D: High series, Winnie Malloy, 723; high game, Fred Edwards, 278.

Division E: High series, Phyllis White, 650; high game, Nancy Riddle, 252.

High Scratch series, Dick Parker, 634; high Scratch game, Joe Marvin, 259.

Most Improved Bowler awards went to Armando Lopez and Mary Campbell. Armando raised his average 11 pins from 136 to 147 and Mary raised hers 18 pins from 82 to 100.

My personal congratulations to all prize winners for some very outstanding bowling.

JOGGERNAUTS

The 60th Annual Bay to Breakers Race will be held in San Francisco on Sunday, May 24. Runners and joggers interested in participating in this 7.7 mile race should contact Paul Sebesta, ext. 2076, for entry forms and additional information. In addition, the Golden Gate Park Races (4 and/or 8 miles) will be held on Saturday, May 16. Let's see a good turnout for these races.

Jetstream Toastmasters

Bob Warner, president of the Jetstream Toastmaster club, won the runner-up award at the area speech contest last Saturday nite. Congratulations to Bob. . .

For the past three years the Jetstream club has been top contender in speech competition, winning four first place awards, one second, and a third.

WANT ADS

The Astrogram's ad section is provided as a personal, non-commercial service to Ames employees. Advertiser must be identified by name, extension and organization. The name may be left out of the ad but is needed for records. Ads must be submitted in writing to The Astrogram, N-241-4, by Thursday, a week before publication. The advertiser's home telephone number must be provided as a point of contact except in carpool notices.

For Sale-1966 BSA Victor cycle, many extras, good condition, \$435 or best offer. Call 593-0826.

For Sale-1965 Open Road camper, 14-ft. patio-back model mounted on 1-ton 65 GMC truck, 4 speed, V6 engine, P.S., P.B., R&H, sleeps 5, \$4695. Call 321-0834.

For Sale-1965 Lotus Elan S-2, hard and soft tops, tonneau cover, Blaupunkt AM-FM, new clutch, rebuilt transmission, beautiful condition, \$2200/offer. Call Joe Morelli, 968-2471 weeknights after 10 p.m.

For Sale-66 Datsun, 2 seat, 1600, all rag tops and fiberglass hard top, vibrasonic reverberator, nearly new, glass belted tires. Call 294-9190.

For Sale-Volkswagen Bug, 1968, radio, popout windows, leatherette, beige exterior and interior, \$1440. Call 245-2165.

For Sale-1968 V.W., sunroof, automatic, radio, \$1400 or best offer. Call 225-4036 after six.

For Sale-1948 M.G.T.C., \$1200 or best offer. Call 225-4036 after 6 p.m.

For Sale-1956 Buick Special, V8, 4 door, AT, PB, PS, R/H, new tires, brakes and differential, excellent condition, \$250, Going away, must sell. Call 969-2664.

For Sale-1965 Mustang, dark blue, V8, radio, heater, auto, trans., disc brakes, rally pak, full console, exc. cond., \$995. Call 225-1892 after 5 p.m.

For Sale-1969 Buick, 225 Custom Limited, has everything, if you look you will buy, \$4000 firm. Call 321-3595 after 7 p.m.

For Sale-1960 Chevrolet. Call 968-7636 after 4 p.m.

For Sale-1965 Ford Mustang, 3 speed, 6 cylinder, new paint job, excellent condition, \$995. Call K. Skrettingland, 252-1733 evenings.

For Sale-69 Chev Kingswood Impala, 9 passenger, air, power brakes and steering, 50,000 mile warranty, only 16,500 miles, \$3100. 19321 Brookview Dr., Saratoga or call 253-9621.

For Sale-1968 Camaro SS-350, convertible, 4 spd. Call 245-3396.

For Sale-68 El Camino 396 SS, 4 spd., turbo-hydro-matic transmission, positive traction, power brakes, power steering, AM/FM radio, air conditioning, sports liner top. Call 296-8742 after 5:30 or any time weekends.

For Sale-Rambler Classic station wagon, 1962, radio, heater, auto, trans., good tires, brakes, transmission & body, engine needs work, \$225. Call Sommer, DA1-8418 after 5 p.m.

For Rent-Vacation cabin, 2 bdrm., furnished, Tahoe City, walk to private beach, \$75/wk, \$30/wkd spring rate. Call 328-4642.

For Rent-Large South Lake Tahoe home, furnished except linens, sleeps 10 plus, nearly everything, \$150/week. Reserve now by call 3516244 after 6 weekdays.

For Rent-2 bdrm. furnished cabin, Tahoe City, sleeps 6-8, walk to beach, \$75/wk, \$40/wkd, till June 15. Call 328-4642.

For Rent-2 bedroom cabin at Lucerne Clear Lake. Call 234-4047 after 6 p.m.

For Rent-In Sunnyvale, 3 bdrm., 2 bath, fireplace, large family room, plus free use of cabana pool. No lease required. If interested call 245-2796 after 5 p.m.

For Rent-Apartment in Sunnyvale, 2 bdrm., 1 1/2 bath, large all-electric kitchen, plus free use of cabana pool. No lease required. If interested call 245-2796 after 5 p.m.

For Sale-4 bedroom, 2 1/2 bath, townhouse, F. R., AEK, Coop pool, prime Santa Clara area, near all schools, assume 51/4% of FHA loan. Full price, \$28,000, \$215/month includes all maintenance, water, insurance etc, owner will help finance. Call 248-4690.

For Sale-Sheltie pups, sired by Ch. Wyndcliff-Richmore Striking, grand sire Ch. Crawford Matchless, 8 weeks old. Call 323-3401.

AIAA CONFERENCE

(Continued from Page 1)

Aerodynamics Branch; and "Transonic Static- and Dynamic-Stability Characteristics of Two Large-Angle Spherically Blunted High Drag Cones", by Robert I. Sammonds, Hypersonic Free-Flight Branch.

SOFTBALL

The Ames Softball team started off the season at McKelvey Park by battling the Hewlett Packard Cups to a 2 to 2 tie. Ames had many opportunities to score but left 11 men stranded on base. The game will be replayed at a later date if either team is in contention for winning the first half.

BOX SCORES

	POS	AB	R	H
E. Lampkin	LF	4	0	3
B. Holmes	1B	3	0	0
B. Bell	C	4	0	1
R. Hedlund	CF	2	0	0
G. Alger	SS	4	0	0
B. Ganzler	2B	4	0	0
J. Myers	3B	2	0	0
R. Dueans	RF	2	1	1
B. Corbett	P	2	1	2
D. Banducci	PH	1	0	0
		28	2	7

The next game will be Monday, May 11, 7 p.m. at the McKelvey Park in Mountain View.

For Sale-Inflateable boat, 2 man, nylon and neoprene, with oars and pump, used once, \$20. Call R. Brockway, 968-6971.

For Sale-Surfboard, Haut 9'4", original price, \$150. Make offer. Call 253-9621.

For Sale-RCA 21 inch VHF/UHF B&W TV console, \$25; Zenith Cobra Stereo automatic record player, new cartridge, \$10; complete set furniture for 2 bedrooms and a family room. Call 969-2664.

For Sale-Casement window, 3-panel, aluminum frame, fits 71 1/2" x 50" rough opening. Complete with glass, screen, hardware, \$20. Call Howard Turner, 967-6188.

For Sale-7' gold tweed sofa, colonial style, \$30; 20x48" never-mar brown coffee table, \$10; Cosco kitchen stool, swivel, black, \$5. Vanity, 4 drw., antique blue, sq. mirror & padded bench, \$20. Call 252-4066.

For Sale-1/8th membership in Moffett Aero Club, Inc., 1940 Interstate Cadet S-1A, beautiful condition, share \$250, \$250/mo., \$2.50/hr. (wet). Call E. Fry, 251-6710.

For Sale-Membership in Fairbrae Swim & Tennis Club, recreational and competitive swimming and tennis as well as active social calendar. Call 245-7717.

For Sale-1960 Westinghouse refrigerator, 16 cu. ft. w/150 lb. freezer, looks like new and in good running condition, yellow w/left-hand door, ideal for cabin, asking \$75. Call Virginia Hughes, 968-8436.

For Sale-Playboy Magazine collection from first issue (1953) to 1967. Early issues hardbound, \$350 or offer. Call Roger Craig, OL7-0549.

For Sale-Full size bed, blond, box springs & mattress with dresser, \$60. Call 296-8006.

For Sale-Premium Kenwood TK-500 Transistor multiplex FM Tuner with automatic stereo switching, hardly used, \$60. Call T.W. Feistel, 941-2616.

Lost-Man's wide, plain gold, wedding band by Balfour, in Jan. or Feb., reward. Call T.W. Feistel, 941-2616.

Found-In front of N-229, two keys on ring, contact Lost and Found, ext. 2337.

Wanted-To purchase a 66, 67, or 68 Dodge or Ford pickup truck 3/4 ton with camper package. Contact Marvin Jenkins, 371-0683.



Bond Drive Going Strong 2.1% Increase in Sales First Three Days

The Ames 1970 Savings Bond Campaign is underway and an early report indicates a 2.1 percent increase in the participation rate.

During the first three days of the drive 41 employees signed for the Payroll Savings Plan for the first time and an additional 69 employees increased their allotment.

A kick-off meeting for division coordinators and canvassers was held last week (May 12) in the Ames auditorium. Guest speaker for the occasion was F. Lowell Laurence, Area Manager of the Savings Bond Division of the U.S. Treasury Department. Dr. Hans Mark, Ames Director, introduced the speaker and urged support for the Center's Bond Drive.

In his remarks Mr. Laurence stressed the importance of the payroll savings plan, not only to provide a stable, automatic, financial program for individuals, but in addition, to assist in maintaining the economic well-being of our country. He said, "For Federal employees buying Savings Bonds is like buying stock in the company for which you work. This is our 'company' what better way to show our support than by taking part in the bond program."

Marcie Smith, Chairman of the 1970 Savings Bond Campaign, outlined her campaign plans and emphasized again that the aim of the drive is to raise the Center's participation rate to at least 70 percent.

Americans are competitive by nature and to stimulate interest in the Bond Drive Marcie has devised a plan which may result in an extra bond or two for the lucky participant. The rules of the game are that your name will go into the "hopper" if you qualify for any of the following categories:

- Taking bonds on May 1, 1970;
- Participating in this drive by joining the Payroll Savings Plan;
- Participating in this drive by increasing allotment.

All coordinators and canvassers will get one chance in addition to any others they may qualify for.

To be eligible for participation in this drive, the authorization must be dated before May 31, 1970, and

(Continued on Page 3)

Powered HL-10 Landing Studies Begun Pioneer/Jupiter Missions Outlined

NASA began a new series of flight tests this week to study the effects of using an engine during the landing approach of the HL-10 lifting body research vehicle.

The design and operational trade-offs of powered versus unpowered landing approaches for the proposed space shuttle are being studied. These trade-offs will determine whether the orbiter part of the shuttle must carry air-breathing engines into orbit for eventual use in the landing pattern. If the engines and additional fuel are not required, payload increases of up to 40 percent may be possible.

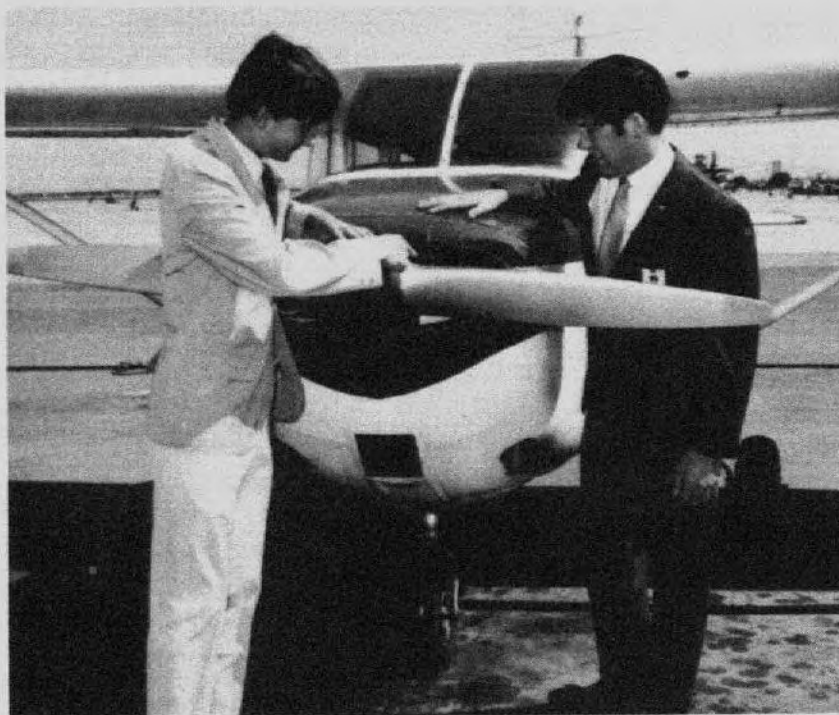
The large rocket engine in the HL-10, which has already propelled the experimental craft to a maximum speed and altitude of 1227 mph and 90,303 feet to study the flight characteristics at transonic and supersonic speeds, has been replaced with three 500-lb thrust rocket engines. The engines will be used during the final landing approach and landing maneuver.

For the powered approach series of flights, the HL-10 will be air launched from a B-52 flying near Palmdale, California, at 45,000 feet. A simulated Ground Controlled Approach (GCA) with the "NASA-1" control station giving flight directions will be made down to an altitude of approximately 12,000 feet above the ground. Flight path angle for this glide portion of the flight will be about 16 degrees.

The pilot will then take over visually and maneuver to altitude of 4,000 feet above the ground where he will ignite all three of the rocket engines. This will allow the descent angle to be decreased to approximately six degrees, about twice that used by present day commercial jet transport aircraft.

The engines will be kept on during the remainder of the approach and during the landing maneuver.

These flight path angles, 6 degrees and 16 degrees, are representative of the proposed shuttlecraft operations.



EXPLORER SCOUTS . . . from the Center's Aeronautics Explorer Post 17 and Astronautics Explorer Astronautics Post 12 will participate in the Stanford Area Council's 1970 Exposition at Moffett Field, Saturday, May 23. Chairman of the Exposition is Dr. Hans Mark, Ames Director. Two members of Post 17, Scott DuBridge (left) and Eric Windmueller, shown examining a Cessna 150, will discuss the fine points of a Navy SMB aircraft, which will be displayed. Nine members of their Post have completed half (64 hours) of a commercial pilot's ground training course. Members of Post 12 have engaged in a number of projects at the Center exposing them to career activity in space age science and engineering. During the exposition the explorers will display and explain their work in computer programming, solid state electronics, lunar geology, and rocket flight.

Details of the Pioneer F and G missions to Jupiter were made known at the Project coordination meeting held at Ames May 6 and 7. The 13 Pioneer/Jupiter experimenters attended the sessions and discussed the progress of their work.

Man's first venture beyond the orbit of Mars into the outer solar system will begin with the launch of the two spacecraft in 1972 and 1973 on missions which will last about two years each.

The Ames-managed Pioneers F and G are being designed to be the first to penetrate the asteroid belt and to reconnoiter the giant planet Jupiter.

After a trip of more than half-a-billion miles to Jupiter, each will spend about a week swinging around the planet with the period of closest approach and maximum scientific interest covering about 100 hours. Closest approach is planned to be about 100,000 miles.

One goal of the mission is to assess hazards in deep space and to develop technology and operations experience for Grand Tour missions to the outer planets-- Jupiter, Saturn, Uranus, Neptune and Pluto-- planned for the late 1970's.

Pioneers F and G will be identical spacecraft weighing about 550 pounds apiece and carrying 60 pounds of scientific instruments. Each will be capable of performing 13 scientific experiments in space including photographing Jupiter with better detail than can be obtained with Earth-based telescopes.

The Pioneers will be powered by four radioisotope thermionic generators producing a total of 120 watts of electric power. The spacecraft will be stabilized in space by spinning at five revolutions per minute in the plane of the Earth's orbit so that a nine-foot-diameter directional radio antenna is pointed constantly at Earth.

The Pioneers will be launched from Complex 36 B, Kennedy Space Center, by Atlas-Centaur launch vehicles, on a direct ascent trajectory.

Unlike recent Mariner planetary missions, specific data for planetary encounters by the Pioneers will not

(Continued on Page 2)

PIONEER F AND G (Continued from Page 1)

be established prior to launch to give greater flexibility to trajectory planning for such long missions.

Pioneer F will be launched in late February or early March, 1972, and the trip to Jupiter will take from 600 to 900 days, arriving in the vicinity of the planet in October or November, 1974, at the earliest. Pioneer G will be launched in April 1973, and the trip time will be comparable, with an earliest arrival time in November or December, 1975.

The thirteen scientific experiments will make a broad study of a number of interplanetary phenomena, possible hazards of flying through the asteroid belt, the Sun's influence on interplanetary space and the penetration of galactic cosmic radiation into the solar system.

They will measure hydrogen atoms; electrons; nuclei of hydrogen, helium and other elements; and the interplanetary magnetic field. They will gather data on the heliosphere, the region of the Sun's influence on the space environment; and they will look for the boundary where the heliosphere ends and galactic space begins. These studies should provide new understanding of the nature of the Sun and of the effects of the heliosphere on Earth.

ASTEROID BELT

Both spacecraft will spend six

months to a year passing through the asteroid belt which circles the Sun out from 180 million to 330 million miles. There may be as many as 50,000 asteroids ranging from the 480-mile Ceres down to bodies about one mile in diameter. There are differing estimates on the number of asteroids smaller than one mile in diameter. It is estimated that there is enough material in the asteroid belt to form a small planet.

The experiments will measure intensity and polarization of sunlight reflected from asteroids and cosmic dust (zodiacal light) to allow calculations of over-all quantities of cosmic debris.

Near Jupiter, the Pioneers are instrumented to gather information on a number of mysteries surrounding the planet. In addition, scientists will perform a celestial mechanics experiment and a radio-occultation experiment by analyzing the radio signals from the Pioneers just before and just after they pass behind the planet for about one hour as viewed from Earth.

Earth-based studies of Jupiter have not yet revealed whether the surface of the giant planet is solid, liquid or gas.

Jupiter has a mass some 318 times that of Earth and its period of rotation is about ten hours. Scientists hope to gather clues as to why a planet with a diameter 11 times that of Earth rotates more than twice as fast as Earth.

U.S. Commissioner to Handle NAS Moffett Traffic Violation Penalties

A new procedure for handling traffic and parking violations committed on the premises of the Naval Air Station Moffett Field, has been instituted and beginning on or about Monday, May 25, penalties for traffic violations cited by the Navy Internal Security Patrol will be handled by the U.S. Commissioner.

The "Notice of Violation" (ticket) contains a description of the charge with the following statement which appears above the signature block of the violator.

"Without admitting guilt for the violation charged, I promise to post bail in accordance with the instructions on the reverse of this form or to appear before the U.S. Commissioner, Community Center Bldg., E-52, NAS Moffett Field, Calif., at 1:30 p.m., on . . . ;"

The instructions for posting bail and notice of action to be taken in the event of failure to post bail or to appear, and the schedule of the bail, are set forth below. This information is a quote from the instructions appearing on the reverse sides of the "Notice of Violation" which is presented to the individual cited.

BAIL:

To remit bail, sign below then send this copy with a check or money order, payable to U.S. COMMISSIONER, addressed as follows: U.S. COMMISSIONER'S LIAISON, Security Office, Building 203; Naval Air Station, Moffett Field, California 94035. DO NOT MAIL CURRENCY.

NOTICE:

Failure to remit bail or to appear on date indicated on the reverse side of this form will subject you to issuance of WARRANT OF ARREST and assessment of additional costs connected therewith.

CODE	SECTION	BAIL	VIOLATION
CPC	602	\$ 10.00	Trespassing
CVC	22500	5.00	Illegal Parking
CVC	22514	15.00	Fire Hydrant
CVC	21653	15.00	Wrong Way
CVC	22100	15.00	Improper Turn
CVC	22350	1.00	Per mile in excess of posted speed limit.
CVC	22450	15.00	Running Stop Sign
CVC	21950a	17.00	Pedestrian in crosswalk
CVC	22454	17.00	Passing school bus
CVC	23102	250.00	Influence of Alcohol
CVC	23105	250.00	Influence of Narcotics
CVC	OTHER	10.00	Other violations of Vehicle Code
CPC	OTHER	50.00	Other violations of Penal Code


Employees at Ames are reminded that the speed limit is 25 mph except as otherwise posted and at intersections where it is 15 mph. Parking is controlled by painted markings. If there is no marking then there is no parking.

College Students Need Housing

During the month of June a number of college students will report for work at Ames under the Federal Summer Employment Program. Many of the students will be out-of-the-area residents and will need temporary housing until they return to school in September.

Anyone interested in sharing a home or apartment with these students may call Mrs. Mercia Menges, Employment Branch, ext. 2021.

MARINE WORLD certificates for discounts at the park are no longer valid. A new discount program is being planned and will be offered in the fall.



Room 134
Admin. Mgt. Building
Phone 2385

The Astrogram is an official publication of the Ames Research Center, National Aeronautics and Space Administration, Moffett Field, California, and is published bi-weekly in the interest of Ames employees.

Editor Dot Evans
Reporters NASA Employees

Deadline for contributions:
Thursday between publication dates



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

NATIONAL SMALL BUSINESS WEEK . . . Hilary Sandoval, Small Business Administrator, has declared the week of May 17-23 Small Business Week. Dr. Thomas O. Paine, NASA Administrator, has accepted the invitation to take part in this event and has emphasized the importance of the role Small Business plays in support of NASA's programs. The poster reproduced here is the first in a series developed for a NASA-wide campaign to increase small business participation in the agency's contracting and purchasing activities.

Personnel Corner

RESIGNATION PROCEDURE

In response to recent requests the resignation procedure to be followed at Ames is outlined below.

At least two weeks prior to resigning the employee should give oral notice to his supervisor.

The employee should promptly report to the Records and Reports Branch of the Personnel Division (Rm. 145, Bldg. 241) to initiate Standard Form 52 which will provide the written notice of resignation.

The Records and Reports Branch will complete the SF-52 and advise and assist the employee on the various clearance requirements. This branch will also furnish information on regulations and procedures to employees resigning or retiring with regard to continuing life and health insurance, unemployment compensation (when applicable), application for refund of retirement, etc.

Credit Union Offering Promissory Certificates

The members of the Board of Directors of the Moffett Field Employees' Credit Union are pleased to announce a six percent promissory certificate program.

Certificates are available under the following conditions:

Purchaser must be a member of the Credit Union;

Have a minimum of \$2,000 in the share account. This amount must be maintained in the share account during the life of the certificate; and,

Hold for two years to earn six percent per annum return.

In the event certificates are presented for payment prior to maturity, 30-days notice must be given the Credit Union. When surrendered before maturity they will receive four percent interest per annum for each full month on deposit.

Certificates, available in the amount of \$1,000, are offered for a limited time only. For further information call or visit the Credit Union office, NAS Building No. 107, telephone number, 966-5494.

BOND DRIVE

(Continued from Page 1)

become effective before August 9, 1970.

Prizes for the Bond Drive:

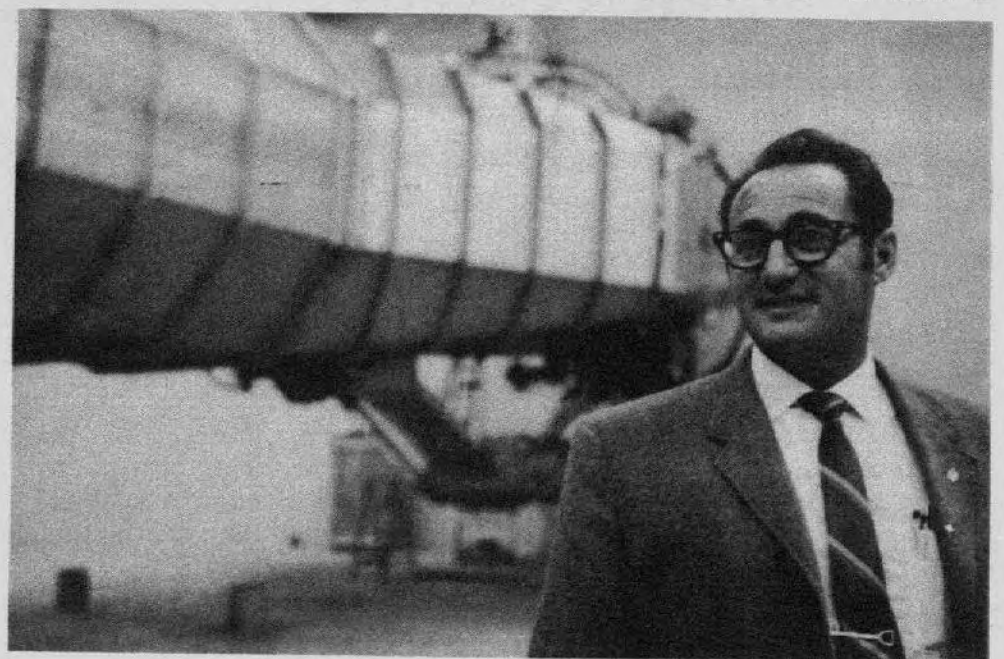
- 1st \$100 bond
- 2nd 50 bond
- 3rd 50 bond
- 4th 25 bond
- 5th 25 bond

Date of the drawing will be announced in a special issue of The Astrogram.

An Introduction to Officers of the ARA Executive Board



PRESIDENT . . . Armando Lopez of Full-Scale and Systems Research Division is the newly-elected President of the Ames Recreation Association. And "Lope" is interested in getting the ARA into full-scale operation. He'll welcome your suggestions and ideas, at ext. 2398.



VICE-PRESIDENT . . . Al Puccinelli of Simulator Systems Operation Branch is associated with the 50-G centrifuge, which accelerates forces of gravity. As Vice President of the Ames Recreation Association, he can accelerate your ideas for ARA activities. Call "Pooch" at extension 2229.

SOFTBALL

. . . by Mike Green

The Ames Softball Team won its first game of the new season with a 6-3 come-from-behind victory over the Mountain View Apaches, on Thursday, May 7. Roger Hedlund and Steve Kanally paced the hitting attack with two hits each. One of Kanally's hits was a key tie-breaking home run. Jim Myers, making his pitching debut, allowed only four hits.

Box Score

	POS	AB	R	H
E. Lampkin	RF	3	0	0
B. Ganzler	2B	4	1	1
M. Green	3B	2	1	0
R. Hedlund	CF	3	0	2
B. Holmes	1B	1	0	0
G. Alger	SS	2	0	0
B. Bell	C	2	1	1
S. Kanally	LF	3	2	2
J. Myers	P	2	1	0
		22	6	6

The Ames Fast Pitch Softball Team beat the Apaches for the second time in less than a week on Monday, May 11. The final score was 6 to 2. Bob Corbett turned in a strong four hit pitching performance to get the win. Although Ames had only three hits, they capitalized on the wildness of the opposing pitcher. Four of the nine men walked during the game, came around to score. Bruce Ganzler and Jim Myers got run producing base hits for Ames. The defensive play of the game was made when George Alger took a relay throw from Steve Kanally and in turn fired a perfect strike to Bob Bell. Bell applied the



TREASURER . . . Dr. Seymour Stein, Chief of the Medical Office, and Treasurer of the Ames Recreation Association, is particularly interested in improving employee health and welfare through sports and other recreational activities. Jog to Si with your suggestions for the ARA, or call him at ext. 2693.



SECRETARY . . . You're not just a cold statistic to the Ames Recreation Association, says ARA Secretary Janet Konrath of Computation Division. Talk to a person, not a machine, if you have suggestions for the ARA, call Jan at ext. 2009.

ARA to Sponsor Night at Ice Follies

The Ames Recreation Association (ARA) is sponsoring an Ames night for a performance of the New Shipstads and Johnson Ice Follies at the Oakland-Alameda Coliseum on Wednesday, July 8, at 8 p.m.

Special guest star with the Ice Follies is Peggy Fleming, U.S. Olympic Gold Medalist, with Ron and Cindy Kauffman, U.S. Pair Champions.

The ARA has a block of tickets for \$5.50 seats which will be sold to Ames employees for \$4.50. Tickets may be purchased from Bob Kuhlmann, Room 213, Building 210. Call him on ext. 3081 for details.

tag to the runner to stop a potential late-inning uprising by the Apaches.

Box Score

	POS	AB	R	H
R. Dueans	RF	2	1	0
B. Ganzler	2B	1	1	1
M. Green	1B	2	0	0
R. Hedlund	CF	4	0	1
S. Kanally	LF	4	1	0
G. Alger	SS	3	1	0
B. Bell	C	1	1	0
J. Myers	3B	2	0	1
B. Corbett	P	3	1	0
		22	6	3

The next games will be Wednesday, May 27, 7:00 p.m. at McKelvey park and Thursday May 28, 9:15 p.m. at Fair Oaks Park.

Ed. Note:

This is Jan's last column for The Astrogram. She has left to join her husband in Montana and we extend best wishes and thanks for her help.

Ames Airings

... by Jane Kohler

When BILL ASHLEY (Experimental Pathology) received a VIP invitation to view the launch of Apollo 13, he decided to plan an extensive tour of the country around that event--so he started driving down the Gulf Coast stopping in San Antonio, Houston, Baton Rouge, New Orleans, Pensacola, Silver Springs, Cypress Gardens, Parrot's Jungle, and then to Canaveral. The day before the launch Bill went on a complete tour of Cape Kennedy and of course, was at Complex 39, the viewing stand, the day of the launch. From Kennedy he went to Washington to visit a friend at the Armed Forces Institute of Pathology, where he formerly was an employee. He said the cherry blossoms in Washington were beautiful. Leaving Washington, Bill visited friends and relatives in Kingston New York; Sioux Falls, South Dakota; and Estes Park, Colorado. He was pleased to have stood at Four Corners, where Utah, Arizona, Colorado, and New Mexico touch. Continuing the "Grand Tour" he also visited Mesa Verde National Park, Carlsbad Caverns and Canyon de Chelly. In Biloxi, Mississippi, he viewed the damage that a tornado can leave. He drove a total of 10,500 miles and in Arizona ran into a storm which started as a dust-storm, turned to a sandstorm, then a rainstorm and finally became a snowstorm. The trip, which included seeing the Apollo 13 launch, most of the country, and every type of weather was quite fulfilling. JEROME PEARSON (Structural Dynamics) and his wife, Jeanne, spent nine days in Hawaii recently. They flew to four islands, Oahu, Maui, Kauai, and Hawaii. Jerome said Waikiki Beach was so crowded that there were more people than sand, and so many hotels that one could no longer see Diamond Head. Their favorite spot was Waimea Canyon on Kauai. Other highlights were the Black Sand Beach and the smoking craters on Hawaii. The only foul-up in the trip was that they neglected to reserve a car to rent and found themselves on the Kona Coast with no transportation to the Airport; however some fellow Californians came to their rescue and gave them a ride. The only other mishap was that Jerome had a run-in with the surf and the surf managed to eat his glasses. All in all it was a very "fun" vacation.

JOGGERNAUTS

Anderson Dam was the scene of the grueling Road Runner Club races in Morgan Hill, on May 1. The temperature rose to 90 degrees, as the Center's Joggeronauts competed in the 15,000 meter, one and two mile races.

In the 15,000 meter, Bruce Castle and Jim Woodruff were clocked at 69:43 and 84:08, respectively. Vito D'Aloia came in tenth, with a time of 68:11.

The two mile race included a 260 foot rise, from the bottom to the top of Anderson Dam. Dick Willoughby, and his wife, Dora, competed in this knee-buckler with times of 18:26 and 19:40.

In the one mile race, through the Anderson Dam Picnic Area and Parking Lot, was completed by Gay Castle (Bruce's wife), Dora Willoughby, and Alice Willoughby, Dora's 12-year-old daughter. Their times were 6:34, 7:14 and 9:10, respectively.

The BAY-TO-BREAKERS race will be held this Sunday, May 24.

Special Discounts Offered to Personnel at Ames

BULBS: Hollands Glory, Inc., bulb growers and exporters of Sassenheim, Holland are offering Ames employees a special flower bulb plan of over 103 varieties. Bulbs are shipped directly to the employee's home during September and October for fall planting. Costs for postage and handling at port of arrival are taken care of by the vendor, and are included in the original price as quoted. Order forms and catalogs with full details are available in The Astrogram Office.

Clubs Forming KARATE

Men or women interested in forming a Karate Club at Ames are asked to send a note to Wayne Howard, N-239-4.

FENCING

Amateur Fencer's League of America (AFLA) may soon establish a Central California Division, including the Santa Clara and Santa Cruz counties. Anyone interested in joining the League or a fencing club, should contact Ed Merek, 239-12 ext. 2998.

HANDBALL

Men! Women! All employees interested in playing handball or learning the game are asked to call Bruce Castle, ext. 2964. He needs to know the number of people interested in participating, so please respond.

SUMMER BOWLING

...by Dennis Riddle

The All-Ames Summer Bowling League has completed its first night of match play at Moonlite Lanes. The current standings are:

TEAM	WON	LOST
Bowling Bums	3	1
Raiders	3	1
The Dirty Rugs	2	2
Team #1	2	2
Vikings	1	3
The Stars	1	3

Bowled May 12:

Men's high series: Dennis Riddle 570; Dick Parker, 560; and Hank Cole 549.

Women's high series: Jan Konrath, 494, Jeanne Clemson, 487; and Judy Long, 457.

Men's high games: Dick Parker 211; Dennis Riddle, 208; and Al Silva 203.

Women's high games: Jan Konrath, 187; Jeanne Clemson, 178; Billie Carle, 177; and Judy Long, 177.

Following the bowling, league officers were elected: Dennis Riddle, president; Howard Garrison, vice-president; Jan Konrath, secretary; and Judy Long treasurer. The league constitution was approved without changes.

INTRAMURAL SOFTBALL

... by Grantland Wheat

All games of the pre-season Banana League were completed by May 12, with Aero the undisputed Banana Champions. The Aero team won victories over Space Science and TGD by scores of 14 - 9 and 9 - 4. In the only other game, RFE squeezed by the Big i's by the score of 27 - 12.

The regular season opened on May 13 with the defending champion Pumas easily defeating RFE by a 15-7 margin. Puma pitcher Sazinger led the Puma attack with four hits including two homeruns, while the Puma defense made characteristically few mistakes in the field.

May 14 the Instrumentals downed Space Science by 14-10. Bill Harkett and Vard Holland led the Big i's with three hits a piece. Vard added injury to insult by mauling Space Science's catcher as he stampeded across home plate, scoring on an inside-the-park homerun.

League standings as of May 10:

	W	L	Pct	GB
Fighting Pumas	1	0	1.000	-
Instrumentals	1	0	1.000	-
Aero	0	0	.000	1/2
TGD	0	0	.000	1/2
Space Science	0	1	.000	1
RFE	0	1	.000	1

WANT ADS

The Astrogram's ad section is provided as a personal, non-commercial service to Ames employees. Advertiser must be identified by name, extension and organization. The name may be left out of the ad but is needed for records. Ads must be submitted in writing to The Astrogram, N-241-4, by Thursday, a week before publication. The advertiser's home telephone number must be provided as a point of contact except in carpool notices.

AUTOMOBILES

For Sale-1960 Impala, 4-door, hard top, V-8 motor semi-air conditioner, Hydramatic, very good tires, new muffler system, and in excellent condition. Asking \$325. Call 241-1752.

For Sale-1956 Buick Special, V-8, 4-door, A.T., P.B., R/H, new tires, brakes and differential. Excellent condition, \$250. Call 969-2654.

For Sale-1967 Chevrolet Camaro, Rally Sport, Automatic 327. \$1650 or make offer. Call 246-8452.

For Sale-1965 Oldsmobile, F-85 convertible, white, in excellent condition. Or will trade for pick-up in \$200 class. Call 968-3250.

For Sale-1969 Ford Galaxie 500, 4-door Sedan, P.S., P.B., Air Conditioning, --390--engine. Call 846-8223 after 6 pm.

For Sale-1964 Volkswagen Bug, Clean, \$650. Call 964-0750.

For Sale-1964 Chevrolet station wagon, 6-passenger, 327, V-8 engine. \$600. Call 241-7909.

For Sale-1957 Porsche coup, CPE Koni shocks, Dunlop tires, Bursch exhaust, runs well, \$1050. Call 941-5332.

For Sale-1965 Airstream, 20 foot Globtrotter \$2500, and a 1962 Convertible, \$500. Call John McCloy 738-0429.

For Sale-1960 Chevrolet Impala, 4-door hard top, automatic transmission, power steering, radio and heater. Call Peter Tomacci in San Jose, 292-0326.

For Sale-1960 TR-3, Runs well, \$450 or best offer Call 948-6360.

HOUSING

For Rent-South Shore, Lake Tahoe, close to everything, 3-bedroom house, A.E.K., sleeps eight, \$100 per week. Call 241-7909.

For Rent-Monte Vista, with a view of the mountains. 2-bedroom, 1 1/2 bath Town House apt. Call 253-6259.

For Rent -South Shore, Lake Tahoe. Two story, all electric appliances. Rent by the week. Call E.A. Harris, 948-6200.

For Rent-Palo Alto, 4-bedroom house, June 15- Sept. 1. Gardening and Housekeeper available. Rent flexible. Call 326-6906.

Wanted-Los Altos, Two young ladies to share home. One bedroom, share bath, \$73. One bedroom, with bath, \$81 and utilities. Must be willing to share household and garden duties. Otherwise on your own regarding food, etc. One-year lease, from June 1 Call Barbara, 968-9465.

MISCELLANEOUS

For Sale-RCA 21-inch V.H.F., U.H.F., black and white T.V. console, \$25. Zenith Cobra stereo, automatic record player, new cartridge, \$10. Complete 2 bedroom, and family room furniture. Call 969-2664.

For Sale-Green, full length suede coat, size 10 custom made, never been worn. \$75 or make offer Call 246-8452.

For Sale-T.V., black and white, 23 inch Zenith 5 1/2 years old. Fine condition. \$75. Call 948-5602 after 6 pm.

For Sale- Refrigerator, General Electric, 17 cu. ft. manual defrost. Good Condition. \$35. Call Don Goodsell, 968-1200.

For Sale 1960 Westinghouse refrigerator, 16 cu. ft. with 150 lb. freezer. Looks like new and is in good condition. Yellow with left-hand door. Ideal for cabin. Asking \$75. Call Virginia Hughes, 968-8436.

For Sale-Utility 10 (U-10) Sail Boat, 9ft. 10 inches like new condition. \$165. Call 266-2872.

For Sale-Two Mobile C.B. Transceivers. Realistic Mode TRC-18, 5 watts, new, 1/2 price at \$49.95 each. Call 253-6259.

For Sale-Four American Mags 7x14 Chevy, with Goodyear Polyglass D70-14 tires and adaptors to V.W. drums. \$250. Call 253-6259.